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=> d his ful

     FILE 'HCAPLUS' ENTERED AT 14:21:42 ON 17 JAN 2006
L1          389 SEA ABB=ON  PLU=ON  "MIKAMI YOICHI"/AU OR MIKAMI Y/AU
L2          874 SEA ABB=ON  PLU=ON  ("MATSUMOTO SEIICHIRO"/AU OR "MATSUMOTO
                SEIICHIROU"/AU) OR MATSUMOTO S/AU
L3          842 SEA ABB=ON  PLU=ON  "HAYASHI YOSHINORI"/AU OR HAYASHI Y/AU
L4            1 SEA ABB=ON  PLU=ON  L1 AND L2 AND L3
L6            2 SEA ABB=ON  PLU=ON  L2 AND L3

     FILE 'REGISTRY' ENTERED AT 14:24:20 ON 17 JAN 2006
L7            2 SEA ABB=ON  PLU=ON  "2'-DEOXYGUANOSINE"/CN OR GUANOSINE/CN
L8         2357 SEA ABB=ON  PLU=ON  GLYOXAL/BI

     FILE 'HCAPLUS' ENTERED AT 14:25:52 ON 17 JAN 2006

     FILE 'REGISTRY' ENTERED AT 14:26:11 ON 17 JAN 2006
                SET SMARTSELECT ON
L9              SEL PLU=ON  L7 1- CHEM :      22 TERMS
                SET SMARTSELECT OFF

     FILE 'HCAPLUS' ENTERED AT 14:28:09 ON 17 JAN 2006
L10       28985 SEA ABB=ON  PLU=ON  L9
L11       28985 SEA ABB=ON  PLU=ON  L10 OR GUANOSINE OR 2(2W)DEOXYGUANOSINE
L12      112806 SEA ABB=ON  PLU=ON  L8 OR ?GLYOXAL?
L13          12 SEA ABB=ON  PLU=ON  (L1 OR L2 OR L3) AND (L11 OR L12)
L14          19 SEA ABB=ON  PLU=ON  (L1 OR L2 OR L3) AND (PHOSPHORYLASE)
L15          25 SEA ABB=ON  PLU=ON  L4 OR L6 OR L13 OR L14
                D STAT QUE
                D IBIB ABS HITSTR L15 1-25


     FILE HOME

     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

     STRUCTURE FILE UPDATES:   15 JAN 2006  HIGHEST RN 871978-73-3
     DICTIONARY FILE UPDATES:  15 JAN 2006  HIGHEST RN 871978-73-3

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

     TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

       Please note that search-term pricing does apply when
       conducting SmartSELECT searches.

     ************************************************************
     *                                                          *
     * The CA roles and document type information have been removed from *
     * the IDE default display format and the ED field has been added,   *
     * effective March 20, 2005.  A new display format, IDERL, is now    *
     * available and contains the CA role and document type information. *
     *                                                          *
     ************************************************************

     Structure search iteration limits have been increased.  See HELP SLIMITS
     for details.
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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

FILE HCAPLUS

FILE COVERS 1907 - 17 Jan 2006 VOL 144 ISS 4
FILE LAST UPDATED: 16 Jan 2006 (20060116/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 14:28:09 ON 17 JAN 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 17 Jan 2006  VOL 144 ISS 4
FILE LAST UPDATED: 16 Jan 2006  (20060116/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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L1          389 SEA FILE=HCAPLUS ABB=ON  PLU=ON  "MIKAMI YOICHI"/AU OR MIKAMI
                Y/AU
L2          874 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ("MATSUMOTO SEIICHIRO"/AU OR
                "MATSUMOTO SEIICHIROU"/AU) OR MATSUMOTO S/AU
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L4            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L1 AND L2 AND L3
L6            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2 AND L3
L7            2 SEA FILE=REGISTRY ABB=ON  PLU=ON  "2'-DEOXYGUANOSINE"/CN OR
                GUANOSINE/CN
L8         2357 SEA FILE=REGISTRY ABB=ON  PLU=ON  GLYOXAL/BI
L9              SEL  PLU=ON  L7 1- CHEM :      22 TERMS
L10       28985 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L11       28985 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 OR GUANOSINE OR 2(2W)DEOXY
                GUANOSINE
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L13          12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3) AND (L11 OR
                L12)
L14          19 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2 OR L3) AND (PHOSPHOR
                YLASE)
L15          25 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 OR L6 OR L13 OR L14


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=> d ibib abs hitstr l15 1-25

L15  ANSWER 1 OF 25  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        2003:702874  HCAPLUS
DOCUMENT NUMBER:         139:229348
TITLE:                   Enzymatic synthesis of 2-deoxyribose-5-phosphate from
                         carbohydrate via intermediate glyceraldehyde-3-
                         phosphate and further synthesis of
```

2-deoxyribonucleosides
INVENTOR(S): Shimizu, Akira; Ogawa, Osamu; **Matsumoto, Seiichiro**; Sasaki, Yoshie
PATENT ASSIGNEE(S): Yuki Gosei Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003250570	A2	20030909	JP 2002-57633	20020304
PRIORITY APPLN. INFO.:			JP 2002-57633	20020304

AB A method for biosynthetic production of 2-deoxyribose-5-phosphate via an intermediate glyceraldehyde-3-phosphate from carbohydrate in the presence of ATP, is disclosed. Synthesized glyceraldehyde-3-phosphate is then reacted with acetaldehyde in a reaction catalyzed by deoxyribose-phosphate aldolase (EC 4.1.2.4) to yield 2-deoxyribose-5-phosphate. Further synthesis of 2-deoxyribonucleosides from 2-deoxyribose-5-phosphate and nucleotide base using phosphopentomutase and nucleoside **phosphorylase**, is also claimed. Glucose, fructose, glucose-6-phosphate, fructose-6-phosphate, glucose-1,6-diphosphate and fructose-1,6-diphosphate, glycerol, dihydroxyacetone, glyceraldehyde, or glycerol-3-phosphate, can be used as starting material. A gene for deoxyribose-phosphate aldolase was cloned from Klebsiella pneumoniae strain B-44. Recombinant deoxyribose-phosphate aldolase expressed in K. pneumoniae or E. coli were used for synthesis of 2-deoxyribose-5-phosphate. Glyceraldehyde-3-phosphate, dihydroxyacetone phosphate, and fructose-1,6-diphosphate as starting material produced significant amount of 2-deoxyribose-5-phosphate. 2-Deoxyribose-5-phosphate was also produced from glucose, glucose-6-phosphate, glycerol, and glycerol-3-phosphate.

L15 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:552342 HCAPLUS
DOCUMENT NUMBER: 139:244764
TITLE: Construction of deoxyriboaldolase-overexpressing Escherichia coli and its application to 2-deoxyribose 5-phosphate synthesis from glucose and acetaldehyde for 2'-deoxyribonucleoside production
AUTHOR(S): Horinouchi, Nobuyuki; Ogawa, Jun; Sakai, Takafumi; Kawano, Takako; **Matsumoto, Seiichiro**; Sasaki, Mie; **Mikami, Yoichi**; Shimizu, Sakayu
CORPORATE SOURCE: Division of Applied Life Sciences, Graduate School of Agriculture, Kyoto University, Kyoto, 606-8502, Japan
SOURCE: Applied and Environmental Microbiology (2003), 69(7), 3791-3797
CODEN: AEMIDF; ISSN: 0099-2240
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:244764

AB The gene encoding a deoxyriboaldolase (DERA) was cloned from the chromosomal DNA of Klebsiella pneumoniae B-4-4. This gene contains an open reading frame consisting of 780 nucleotides encoding 259 amino acid residues. The predicted amino acid sequence exhibited 94.6% homol. with the sequence of DERA from Escherichia coli. The DERA of K. pneumoniae was expressed in recombinant E. coli cells, and the specific activity of the enzyme in the cell extract was as high as 2.5 U/mg, which was threefold